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BOOK REVIEW

THE QUANTITATIVE MOMENT AND THE QUALITATIVE OPPORTUNITY: LEGAL STUDIES OF JUDICIAL DECISION MAKING

Gregory C. Sisk†

DECISION MAKING IN THE U.S. COURTS OF APPEALS. By *Frank B. Cross*.††
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† Orestes A. Brownson Professor of Law, University of St. Thomas School of Law, Minnesota. I thank Michael Heise, Jason Czarnezki, Rob Vischer, Darryn Beckstrom, Andy Morriss, and Tom Berg for comments on an earlier draft, but sole responsibility for the opinions expressed and any errors made remains with me. In the interests of full disclosure: on one occasion six years ago, I was privileged to join an essay for which Professor Cross was the lead author and that was published as part of a dialogue on empirical research by legal scholars. See Frank Cross, Michael Heise & Gregory C. Sisk, *Above the Rules: A Response to Epstein and King*, 69 U. CHI. L. REV. 135 (2002). I have not collaborated with Professor Cross on empirical research, nor co-authored with him any other work of scholarship.

†† Herbert D. Kelleher Centennial Professor of Business Law, McCombs School of Business at the University of Texas; Professor of Law, University of Texas Law School.

INTRODUCTION

Our colleagues in the social sciences have been applying quantitative measures and statistical techniques to study the courts, judges, and other legal institutions for more than half a century.¹ By contrast, for decades, scholars in the legal academy who devoted themselves to empirical² analysis of the law and legal institutions were relatively few, and the published yield was fairly modest. Only twenty years ago, Professor Peter Schuck was moved to ask “Why Don’t Law Professors Do More Empirical Research?”³ Less than ten years ago, Professor Michael Heise still had occasion to lament “The (Relative) Dearth of Empirical Legal Scholarship.”⁴

When writing those regretful words, however, Professor Heise observed that change appeared to be coming and that empirical research was “continu[ing] to emerge and at an increasingly rapid rate.”⁵ In the past decade, the pace of empirical legal study has quickened, and the publication of empirical studies in law journals has increased.⁶ Within just a few short years, empirical study of the law in general, and in particular of the courts, has risen to a level of prominence in American law schools. Indeed, more than one law school, including the home of this law review, has aspired to lead the national legal academy in the pursuit of empirical legal scholarship.⁷ Thus, as we look at the research scene today, what Professor Theodore Eisenberg has called “the thirst for systematic knowledge of the legal sys-

¹ See, e.g., C. HERMAN PRITCHETT, *THE ROOSEVELT COURT: A STUDY IN JUDICIAL POLITICS AND VALUES, 1937–1947* (1948).

² In this review, I address “the subset of empirical legal scholarship that uses statistical techniques and analyses,” that is, “studies that employ data (including systematically coded judicial opinions) that facilitate descriptions of or inferences to a larger sample or population as well as replication by other scholars.” Michael Heise, *The Importance of Being Empirical*, 26 PEPP. L. REV. 807, 810 (1999). On the question of what constitutes “empirical” scholarship, compare Lee Epstein & Gary King, *The Rules of Inference*, 69 U. CHI. L. REV. 1, 2 (2002), which eschews the “narrow meaning” of empirical as associated with quantitative data in favor of a “broader” inclusion of all research “based on observation or experience,” with Jack Goldsmith & Adrian Vermeule, *Empirical Methodology and Legal Scholarship*, 69 U. CHI. L. REV. 153, 153–54 (2002), which contends that with respect to “a broad domain of legal scholarship” that “pursues doctrinal, interpretive, and normative purposes rather than empirical ones,” efforts to impose rules governing empirical methodology are misplaced. To be clear that I adopt Professor Heise’s definition of “empirical” research, this Essay regularly uses “quantitative” analysis as a synonym.

³ Peter H. Schuck, *Why Don’t Law Professors Do More Empirical Research?*, 39 J. LEGAL EDUC. 323 (1989).

⁴ Heise, *supra* note 2, at 810.

⁵ *Id.* at 809.

⁶ See Tracey E. George, *An Empirical Study of Empirical Legal Scholarship: The Top Law Schools*, 81 IND. L.J. 141, 146–47 (2006).

⁷ See *id.* at 142, 158 (ranking law schools based on their “place in the [Empirical Legal Studies] movement,” with Cornell ranked comfortably in the top ten).

tem”⁸ is more likely to be quenched by the increasing flow of empirical scholarship.⁹

From the beginning of the empirical legal studies movement in the legal academy, the courts and those involved with the courts have been a central object of attention by empirical scholars.¹⁰ Of course, there exists an ever-expanding universe of legally oriented matters demanding quantitative analysis,¹¹ and judicial decisions are but a small yet more visible part of the category of legal disputes in this country.¹² Nonetheless, the study of judicial decision making has been the vibrantly beating heart of the field of empirical legal studies, as it is also for the discipline of law in general.¹³ Given the centrality of the courts in our legal system, combined with the court-centric focus of legal education, empirical analysis in the legal academy has been gravitationally attracted toward the judiciary. Thus, even as the scope of empirical legal study continues to expand, studies of the courts and judges remain the bellwether.

The publication in 2007 of Professor Frank B. Cross’s *Decision Making in the U.S. Courts of Appeals* well evidences that the field of empirical inquiry within the legal academy has now reached a stage of maturity.¹⁴ Beyond providing a general sketch of the literature on empirical analysis of the federal appellate courts (which by itself would have made this text an invaluable resource for researchers),

⁸ Theodore Eisenberg, *Why Do Empirical Legal Scholarship?*, 41 SAN DIEGO L. REV. 1741, 1743 (2004).

⁹ See Lee Epstein, Andrew D. Martin & Matthew M. Schneider, *On the Effective Communication of the Results of Empirical Studies, Part I*, 59 VAND. L. REV. 1811, 1816 (2006) (“To claim that empirical work is now a fundamental part of legal scholarship borders on the boring.”).

¹⁰ Heise, *supra* note 2, at 825–28.

¹¹ See Epstein, Martin & Schneider, *supra* note 9, at 1817 (finding an impressive range of substantive topics under empirical scrutiny in the leading law reviews and saying “[f]rom constitutional law to commercial law, from statutory interpretation in the tax context to the use of scientific evidence in criminal cases, from the appointment through the retirement of judges, no subject now seems beyond the reach of empirical analysis”). As an illustration of the breadth of legal subjects that are now receiving empirical attention in the legal academy, see the subjects of panels at the second Conference on Empirical Legal Studies in November 2007. Conference on Empirical Legal Studies, New York University Law School (Nov. 9–10, 2007), http://hq.ssrn.com/conf_prelim_program=CELS-2007. The topics ranged from the standards of “Courts and Judges” and “Civil Litigation” through “Corporate” and “Bankruptcy” matters to “Contracts” and “Torts” and beyond to “Intellectual Property.” *Id.*

¹² Kevin M. Clermont & Theodore Eisenberg, *Litigation Realities*, 88 CORNELL L. REV. 119, 125 (2002) (“[J]udicial decisions represent only the very tip of the mass of grievances.”).

¹³ See Alex Kozinski, *Who Gives a Hoot About Legal Scholarship?*, 37 Hous. L. REV. 295, 297–98 (2000) (saying that with respect to legal ideas and their effect on the law, “[f]or better or worse, it’s in the courtroom and in legal opinions where the rubber meets the road”).

¹⁴ FRANK B. CROSS, *DECISION MAKING IN THE U.S. COURTS OF APPEALS* (2007).

Professor Cross undertakes an innovative and wide-ranging set of empirical studies that contribute in multiple ways to our understanding about the federal appellate courts. Drawing upon a large database of thousands of federal appellate decisions over many decades, Professor Cross conducts a broad-sweeping quantitative examination that focuses on a sequence of variables, grounded in a series of alternative theories, as applied to the behavior of the federal courts of appeals and their judges.¹⁵

As described more fully below in this Essay,¹⁶ Professor Cross concludes that “[j]udicial decision making clearly involves a mix that includes some ideological influence, considerable legal influence, and undoubtedly other factors.”¹⁷ Professor Cross suggests that “the most important theme, which runs throughout the book, is the importance of the law in determining judicial outcomes.”¹⁸ As prominently featured by Professor Cross’s book, empirical study within the legal academy progressively focuses more on identifying and measuring the law as an element of judicial decision making, rather than assuming that only (or mostly) judicial ideology or preferences matter.¹⁹

Together with the accumulation of an impressive body of empirical work by many legal scholars over the past decade, Professor Cross’s book confirms that we are experiencing what I will call a “Quantitative Moment” in the legal academy.²⁰ The greater value attached to empirical study of the law in the leading law schools is beginning to provide the prestige, attention, and resources necessary for quantitative research and statistical analysis to flourish. The encouragement provided to some of the finest legal minds in our discipline to undertake this time-consuming, labor-intensive, and painstakingly-detailed work pushes the creative envelope in empirical exploration of the law and legal institutions. New approaches to exploration of the multiplying dimensions of the law are regularly being invented. New attempts to measure elements of the law and legal process, and their influence on legal actors and society, are constantly being developed. New statistical methods are being adapted to evaluate the correlation between variables and legal outcomes or effects. And far from exhausting the field of subjects for study, each newly published work invariably identifies yet another aspect of the matter that deserves further study or that has been neglected thus far.

¹⁵ See *id.* at 6–10 (providing an overview of the book).

¹⁶ See *infra* Parts I–II.

¹⁷ CROSS, *supra* note 14, at 177.

¹⁸ *Id.* at 228.

¹⁹ See *infra* Part I.B–C.

²⁰ See *infra* Part I.

At the same time, a consistent theme resonating throughout Professor Cross's new book is that quantitative analysis is subject to significant limitations. Empirical study has yet to demonstrate that any extralegal factor—ideology, judicial background, strategic reaction to other institutions, the nature of litigants, or the makeup of appellate panels—explains more than a very small part of the variation in outcomes (when exploring large numbers of judicial decisions in diverse subject-matter areas).²¹ Empirical studies devised to test the influence of legal factors, such as deferential standards of appellate review and precedent, also produce limited findings and incomplete explanations. Studies do confirm the presence of a robust correlation between judicial decisions and “the law,” or at least that little part of the law that thus far has been captured through quantitative measures. But the larger part of judicial decision making in its general operation remains unexplained by statistical models.

Accordingly, as a by-product of the growth of empirical legal study, the indispensability of alternative means of studying the courts has also become ever more clear.²² Empirical study of the courts should remain a mainstay of legal scholarship: it reminds us of the reality of multifarious influences on judges, allows us to identify patterns that are not readily discernable in unsystematic reading of opinions, and offers us significant explanatory power in certain discrete categories of cases. However, theoretical and doctrinal work will never be supplanted. Judges have long insisted that the tools of the law—the text and structure of legal documents, procedural requirements, legal history, common-law reasoning, and precedent—remain essential elements to fully understanding and deciding a legal controversy. Because of difficulties in quantifying legal elements for empirical study, and the consequent limited explanatory power of quantitative models of judicial decision making, the qualitative²³

²¹ See *infra* Part II.A.

²² See *infra* Part II.B.

²³ In other academic disciplines, “qualitative” research strategies fall within the general category of empirical research. Qualitative empirical researchers tend to rely on observations or interviews in the field to gather generally non-numerical data; interpretation of and interaction with the data occurs in an ongoing manner and simultaneously with its collection. The results may be reported by a narrative or otherwise and are presented without rigorous statistical analysis. See generally Michael J. Piore, *Qualitative Research: Does It Fit in Economics?*, in A HANDBOOK FOR SOCIAL SCIENCE FIELD RESEARCH 143, 144–45 (Ellen Perecman & Sara R. Curran eds., 2006) (stating that the “use of open-ended interviews as a research technique depends on the ability to draw out of the interview material something that is interesting and meaningful,” acknowledging that “interpreting interviews has always been at least as much a matter of intuition and instinct as of systematic methodology,” and explaining that in drawing a theory out of case studies, the author has presented the “theory in a narrative form . . . , reinforcing the ‘qualitative’ flavor of the research”). As Herbert Kritzer explains, a study may be described as “qualitative, not because it contains no quantitative data, but because it shuns sophisticated statistical manipulation of the quanti-

forms of legal scholarship, both theoretical and doctrinal, have ample room within which to operate and contribute to a fuller understanding of legal decisions.

For these reasons, what I would describe as a "Qualitative Opportunity" looms large today, and law schools should not be so short-sighted as to slight the traditional forms of legal scholarship, even as they wisely encourage the quantitative methods. As empirical legal studies comes into its prime—and theoretical and doctrinal scholarship retain their established standings within the legal academy—quantitative and qualitative approaches to understanding the law and legal institutions should bolster each other and strengthen the quality and value of each.²⁴

I

THE QUANTITATIVE MOMENT IN STUDY OF THE COURTS

In *Decision Making in the U.S. Courts of Appeals*, Professor Frank Cross continues an encouraging trend in the empirical study of judicial decision making of focusing greater attention upon judging in the lower federal courts, including the courts of appeals. Social scientists and legal academics have devoted perhaps excessive attention to the United States Supreme Court. Although the high Court is at the apex of the judicial pyramid, empirical studies of that body are as ambiguous as they are abundant. Because of the small number of jurists serving that unique institution, empirical studies of its members often shade from generally applicable science into quantitative biography. Moreover, the unique and self-selected pool of cases decided by the Court makes dangerous the extrapolation of most empirical findings to other tribunals. Instead, we may better understand the human ac-

tative data and relies more on textual analysis and presentation than on numerical summaries." Herbert M. Kritzer, *Interpretation and Validity Assessment in Qualitative Research: The Case of H.W. Perry's Deciding to Decide*, 19 LAW & SOC. INQUIRY 687, 720 (1994) (book review). Kritzer notes that "the core of the analytic process in qualitative research revolves around pattern *identification* and pattern *matching*, both of which occur in both the data acquisition and data review phases of qualitative research." *Id.* at 701. So understood, doctrinal legal research might be considered a form of qualitative empirical research, as it involves collection of data from judicial opinions, constant interaction of the researcher with that data, and efforts to identify patterns in those decisions. See George, *supra* note 6, at 146 (explaining that doctrinal scholarship has an empirical component because it "builds on the author's account of existing law in order to propose the best legal solution to a question"). My use of the term "qualitative" in this Essay thus shares some parallels with the concept of qualitative empirical research in the social sciences, particularly as applied to the more descriptive forms of doctrinal research. However, I use "qualitative" in this Essay to also encompass other forms of legal scholarship that address the quality of the law and that have a theoretical or normative component. In particular, by referring to "qualitative" and "quantitative" scholarship in this Essay, I mean to contrast all traditional forms of legal scholarship with the number-crunching style of empirical legal studies.

²⁴ See *infra* Part III.

tivity of judging in a legal system by looking at federal circuit judges as the more typical judicial actors (and the federal courts of appeals as the tribunals) that decide the lion's share of appellate cases in the federal system.²⁵

As Professor Cross rightly observes, "in large measure, it is the circuit courts that create U.S. law. They represent the true iceberg, of which the Supreme Court is but the most visible tip."²⁶ Moreover, the substantially larger and cumulative set of decisions participated in by hundreds of judges in the lower federal courts, considered longitudinally across time, affords a more stable and reliable indicator of general judicial attitudes and behavior.²⁷

A. Examining Both Extralegal and Legal Influences on Judicial Decision Making

Beginning his book by addressing the perennial question of ideological or political influences upon the judiciary (the "attitudinal model" that has been political scientists' standard focus for decades),²⁸ Professor Cross confirms that while ideology is an influence, it is a fairly small one—weaker than legal factors in its explanatory power.²⁹ He conducts the most comprehensive examination of the

²⁵ See Donald R. Songer & Susan Haire, *Integrating Alternative Approaches to the Study of Judicial Voting: Obscenity Cases in the U.S. Courts of Appeals*, 36 AM. J. POL. SCI. 963, 963 (1992) (explaining why "understanding decision making on the Courts of Appeals should be a priority for public law scholars").

²⁶ CROSS, *supra* note 14, at 2; see also J. WOODFORD HOWARD, JR., COURTS OF APPEALS IN THE FEDERAL JUDICIAL SYSTEM 8 (1981) (saying, in the leading text on the federal appellate courts of that period, that the courts of appeals are "the vital center of the federal judicial system" (quoting J. Edward Lumbard, *Current Problems of the Federal Courts of Appeals*, 54 CORNELL L. REV. 29, 29 (1968))).

²⁷ Professor Cross conducts most phases of his empirical study on the random sample of published decisions in the United States Courts of Appeals Database, which political scientist Donald Songer initially produced and continues to supervise. See CROSS, *supra* note 14, at 3. See generally DONALD R. SONGER, REGINALD S. SHEEHAN & SUSAN B. HAIRE, CONTINUITY AND CHANGE ON THE UNITED STATES COURTS OF APPEALS, at xiii–xviii, 20–22, 145–52 (2000) (drawing on the database to provide a longitudinal analysis of the judicial selection process, the changing agenda and diverse nature of issues before the circuits, the effect of disparity in resources of litigants who bring those actions, and influences on judicial voting—with particular attention to party affiliation and regional origins).

²⁸ See, e.g., JEFFREY A. SEGAL & HAROLD J. SPAETH, THE SUPREME COURT AND THE ATTITUDINAL MODEL REVISITED (2002); see also Howard Gillman, *What's Law Got to Do with It? Judicial Behavioralists Test the "Legal Model" of Judicial Decision Making*, 26 LAW & SOC. INQUIRY 465, 466 (2001) (reviewing SEGAL & SPAETH, *supra*) (describing and criticizing the "internalized" view in political science "that Supreme Court justices (and, in the minds of many, appellate judges in general) should be viewed as promoters of their personal policy preferences rather than as interpreters of law").

²⁹ See CROSS, *supra* note 14, at 9, 28, 165–68, 228–29. Professor Cross found other traditional variables included in empirical studies of judging (namely, the judge's personal background and experience, such as race and gender) either to be insignificant or to have "vanishingly small" effects on case outcomes. See *id.* at 69–93. For a general review of judicial demographic and employment variables as they pertain to the study of judicial

question to date, by using a large set of thousands of published decisions by the federal courts of appeals over many decades. He does so with a refined measure of ideology and with consideration of case types and panel effects.³⁰ Professor Cross finds that ideology does have a statistically significant association with judicial outcomes (that is, the correlation is not likely a matter of random chance), but that “the measured effect size for ideology is always a fairly small one.”³¹

Building on his pioneering work, by going beyond evaluating the votes of individual judges to evaluating the behavior of judges acting as members of appellate panels,³² Professor Cross also conducts a multidimensional study of panel effects that includes both ideological and legal variables. After accounting for the persuasive impact of other members of a panel and the norm of judicial collegiality, the influence of ideology further diminishes.³³ In sum, it appears that invocation by a member of an appellate panel of “nonideological law as a persuasive argument [may] overcome[] ideological preferences.”³⁴

Professor Cross has long contended that the attitudinal model, while containing a measure of truth, exaggerates the influence of ideology because it generally ascribes judicial decisions to nothing more

behavior, see Tracey E. George, *Court Fixing*, 43 ARIZ. L. REV. 9, 16–31 (2001); Gregory C. Sisk, Michael Heise & Andrew P. Morriss, *Charting the Influences on the Judicial Mind: An Empirical Study of Judicial Reasoning*, 73 N.Y.U. L. REV. 1377, 1451–86 (1998) [hereinafter Sisk, Heise & Morriss, *Judicial Reasoning*]; Gregory C. Sisk, Michael Heise & Andrew P. Morriss, *Searching for the Soul of Judicial Decisionmaking: An Empirical Study of Religious Freedom Decisions*, 65 OHIO ST. L.J. 491, 575–612 (2004).

³⁰ See Cross, *supra* note 14, at 24–38.

³¹ *Id.* at 38. For more on the effect size of ideology as an influence on judicial behavior, see *infra* notes 74–78 and accompanying text.

³² Frank B. Cross & Emerson H. Tiller, *Judicial Partisanship and Obedience to Legal Doctrine: Whistleblowing on the Federal Courts of Appeals*, 107 YALE L.J. 2155 (1998). The Cross-Tiller study followed closely upon an earlier study of panel decisions by then-Professor (and now-Dean) Richard Revesz. Richard L. Revesz, *Environmental Regulation, Ideology, and the D.C. Circuit*, 83 VA. L. REV. 1717 (1997) (finding that the appellate panel’s composition, in terms of judges appointed by presidents of different parties, had a significant effect on the outcome); see also Emerson H. Tiller & Frank B. Cross, *A Modest Proposal for Improving American Justice*, 99 COLUM. L. REV. 215 (1999) (proposing the alteration of random assignment of judges to panels, to ensure that judges appointed by presidents of both parties sit on each panel); Emerson H. Tiller & Frank B. Cross, *A Modest Reply to Judge Wald*, 99 COLUM. L. REV. 262, 263 (1999) (arguing that split-partisan panels on circuit courts would “moderate ideological tendencies and encourage adherence to doctrine, thus strengthening the legal model”). On the debate concerning panel effects and appropriate responses, see generally Gregory C. Sisk & Michael Heise, *Judges and Ideology: Public and Academic Debates About Statistical Measures*, 99 NW. U. L. REV. 743, 753–59 (2005).

³³ Cross, *supra* note 14, at 164–68. Cass Sunstein, David Schkade, Lisa Ellman, and Andres Sawicki describe the alternative effects of contrasting ideological compositions of appellate panels as “ideological amplification” (in which a panel constituted from the same political party is more likely to vote in a stereotypically partisan direction) and as “ideological dampening” (in which a politically split panel is less likely to do so). CASS R. SUNSTEIN, DAVID SCHKADE, LISA M. ELLMAN & ANDRES SAWICKI, *ARE JUDGES POLITICAL?* 8–10 (2006).

³⁴ Cross, *supra* note 14, at 168.

than preferences and neglects to account fully for attributes of the legal model.³⁵ Even as some suggested that the legal model of judging could not be systematically evaluated because its elements could not be operationalized for empirical study,³⁶ Professor Cross insisted that legal scholars were “ideally positioned to explore [the legal model] angle, which has been insufficiently considered by many political science researchers.”³⁷

B. Integrating the Law into Empirical Study of Judicial Decision Making

In this book, Professor Cross undertakes the “daunting”³⁸ task of integrating the legal dimension of decision making into empirical legal studies, although the effort is inevitably imperfect and incomplete.³⁹ Despite the insuperable obstacles to fully specifying the legal model of judging into a quantitative model for statistical analysis, Professor Cross finds that “[f]or every legal variable amenable to quantitative study, there was consistently a statistically significant association that was robust to different samples and control variables.”⁴⁰

First, recognizing the difficulty of devising a numerical coding for the correct decision on a *substantive* point of law, Professor Cross notes that “the legal importance of *procedural* rulings does enable the researcher to separate out some effect for the law.”⁴¹ Turning to procedural rules as a “promising variable,”⁴² he looks first to appellate standards of review that direct deference to trial court decisions.⁴³ Integrating what Professors Kevin Clermont and Theodore Eisenberg have called the “affirmance effect”⁴⁴ into his study model, Professor Cross adds a comparative variable based on the postulated ideological direction of the lower court decisions.⁴⁵ When this legal variable—

³⁵ See Frank B. Cross, *Political Science and the New Legal Realism: A Case of Unfortunate Interdisciplinary Ignorance*, 92 Nw. U. L. REV. 251, 285–311 (1997).

³⁶ See JEFFREY A. SEGAL & HAROLD J. SPAETH, *THE SUPREME COURT AND THE ATTITUDINAL MODEL* 33 (1993) (“[T]he legal [model] has not, and perhaps cannot, be subject to systematic empirical falsification.”).

³⁷ Cross, *supra* note 35, at 321.

³⁸ CROSS, *supra* note 14, at 46.

³⁹ See Gillman, *supra* note 28, at 484 (explaining that empirical study can never fully capture the influence of law because “there is a symmetry of frustration at work: if legalists accept the behavioralist’s methodological demand for a conception of law that lends itself to determinate predictions about law-influenced behavior then they are being trapped into accepting a conception of law that they consider inaccurate and that they know is easily falsified”).

⁴⁰ CROSS, *supra* note 14, at 228–29.

⁴¹ *Id.* at 47 (emphasis added).

⁴² See *id.* at 47–48.

⁴³ See *id.* at 46–53.

⁴⁴ Clermont & Eisenberg, *supra* note 12, at 150.

⁴⁵ CROSS, *supra* note 14, at 53–56.

affirmance deference—is explored through a regression analysis of appellate case outcomes (in a study including various proxies for individual judges' ideology), Professor Cross finds some support for the legal model; however, the ideological effect survives the introduction of this variable.⁴⁶ In a further test in a panel context, Professor Cross includes a variable designed to “capture[] the relative effect of the more extreme ideological preferences among the judges” based on the median ideological rating for a three-judge panel. Here he finds that the law, as measured by affirmance deference, is not only “statistically significant” but also “more substantively significant” (that is, it had a larger coefficient, indicating a more substantial effect on the dependent variable) than alternative measures for ideology.⁴⁷ Based on this evidence, Professor Cross concludes that law is a “major determinant” of case outcomes.⁴⁸ Moreover, he notes, procedural rules of deference are “only one small slice of the legal model.”⁴⁹ The fact that procedural rules “demonstrably matter in case outcomes” suggests that “substantive rules also matter, even if they cannot be readily measured with available coding.”⁵⁰

Second, exploring legal requirements that operate as gatekeepers for access to the federal courts (jurisdiction, standing, mootness, exhaustion of administrative remedies, and the political-question doctrine),⁵¹ Professor Cross finds that the “interposition of a legal threshold requirement obviously ha[s] a significant effect on judicial decisions.”⁵² Here as well, the influence of ideology persists, but ideology is not a particularly strong factor in whether a threshold requirement is satisfied.⁵³

Third, not surprisingly for a lower federal tribunal, precedent proves to be an influence on judicial decision making.⁵⁴ With respect

⁴⁶ *Id.* at 54–56.

⁴⁷ *See id.* at 64–65.

⁴⁸ *Id.* at 68.

⁴⁹ *Id.* at 67.

⁵⁰ *Id.*

⁵¹ On ideological influence on decisions involving the threshold requirement of standing, compare Richard J. Pierce, Jr., *Is Standing Law or Politics?*, 77 N.C. L. REV. 1741, 1775 (1999), which criticizes the standards for standing rules as too easily manipulated to political ends, thereby allowing judges to confer standing on those whose ideological goals they endorse while denying access to the courts to those whose views are disapproved, with Nancy C. Staudt, *Modeling Standing*, 79 N.Y.U. L. REV. 612, 617 (2004), which finds, in an empirical study of standards for standing of taxpayers challenging government spending projects, in cases across the federal judicial hierarchy, that “judges will render law-abiding and predictable decisions in circumstances where clear precedent and effective judicial oversight exists,” but when either variable is not present, “federal judges are more likely to decide standing issues based on their own ideological preferences.”

⁵² CROSS, *supra* note 14, at 228.

⁵³ *Id.* at 191.

⁵⁴ *See* Lee Epstein & Jack Knight, *Courts and Judges*, in THE BLACKWELL COMPANION TO LAW AND SOCIETY 170, 185 (Austin Sarat ed., 2004) (“When it comes to lower tribunals,

to mandatory precedent from above, Professor Cross conducts one phase of his sequence of empirical studies by including a pair of variables designed to compare the ideological preferences of past and present Supreme Court panels. Although it is a crude proxy for Supreme Court precedent and was designed to measure whether circuit judges strategically adapt decision making toward the changing ideological preferences of the Supreme Court,⁵⁵ the past-looking variable of this pair may capture the Court's prior sense of direction in a manner similar to that of precedent projected collectively across the landscape of the law.⁵⁶ Indeed, Professor Cross argues that, given the substantial specification errors in such a measure of past precedent, the fact that it is nonetheless a robustly significant variable in this study suggests it is "an exceptionally strong variable" and provides "evidence of remarkable power for the legal model."⁵⁷

Fourth, in a fascinating stage of empirical study that jointly examines the procedural factor of affirmance deference and the precedential impact of circuit court decisions, Professor Cross finds evidence of an interaction that bolsters the legal model of judging. To measure the precedential impact of appellate decisions, Professor Cross constructs variables from the Westlaw Keycite feature.⁵⁸ When integrating these variables with a variable for reversal (meaning that the appellate panel issuing the precedential decision did not defer to the district court by affirming), Professor Cross finds that the total citations (positive and negative) to the panel's decision increase and that there is a significant correlation between reversal and later negative precedential impact.⁵⁹ We expect a reversal to be grounded more in law than fact, and we would hypothesize that a reversal is more likely (on the margins) to be an expansive ruling because it departs from the procedural norm of deference to the lower court.⁶⁰ Thus, these findings confirm both the greater precedential effect of law-based decisions

there is little disagreement among scholars that precedent probably matters a lot—though they disagree on why that may be so.”); Pauline T. Kim, *Lower Court Discretion*, 82 N.Y.U. L. REV. 383, 404 (2007) (arguing that the “simplest explanation” for lower court compliance with superior court precedent is “that judges have *legal* preferences independent of their political preferences”).

⁵⁵ See CROSS, *supra* note 14, at 103–08.

⁵⁶ See Frank Cross, *Appellate Court Adherence to Precedent*, 2 J. EMPIRICAL LEGAL STUD. 369, 401 (2005) (suggesting that this variable, while “concededly a very rough and general one,” “should measure the ideology of many of the precedents that the circuit court panels are applying” and thus “may capture an effect for law”).

⁵⁷ CROSS, *supra* note 14, at 122.

⁵⁸ See *id.* at 208–12. The Westlaw Keycite feature includes information about total citations; a yellow flag indicating a negative limitation or qualification in the use of the precedent; and a red flag indicating that the precedent has been overruled or preempted, at least in part, by reversal or legislative intervention. See *id.* at 208–09.

⁵⁹ *Id.* at 214–15.

⁶⁰ See *id.* at 214.

and the understandable (and legally appropriate) propensity of subsequent panels to question a precedent that may have been legally aggressive. Moreover, ideology appears to be an insignificant influence on appellate panels' reliance on precedents.⁶¹ As Professor Cross concludes, "the issue of affirmance deference versus reversal is the major determinant of precedential impact and clearly had greater effect than judicial ideology."⁶²

Fifth, when adding variables for types of litigants (particularly a federal government respondent) and when concentrating on a particular type of case (specifically labor law decisions), variables that measure rules of law (proxies for deferential standards of appellate review and for past Supreme Court precedent) become considerably more powerful, as revealed both by the coefficients for the legal factor variables and by a distinctly higher term for the explanatory power of the overall model.⁶³ This result suggests that the more fully specified the quantitative model becomes, the more likely that legal variables will rise to the top in terms of both significance and power of effect.

Finally, a researcher who looks for persuasive evidence of the legal model only in data drawn from appellate decisions assumes (almost certainly in error) that the most appropriate place to seek the influence of legal factors are those cases that proceed all the way from filing through trial and on to a published federal appellate decision. As Professor Cross observes, "[a] study of decisions would involve only the tip of the iceberg and fail to explain the outcome of most litigation. The importance of the law might be found in the settlements, which are not studied."⁶⁴

C. The Turn to the Law and to Opinion Content Analysis in Empirical Study of Judicial Decision Making

More sophisticated statistical models that include legal factors and legal reasoning as variables are perhaps the greatest priority in continued quantitative examination of the federal judiciary. A fully specified legal model will prove eternally elusive⁶⁵ because legal reasoning is not formulaic in nature: the reasonable parameters for debate on the determinate nature of text and doctrine cannot be described by number. Nonetheless, in certain categories of cases, legal factors may be more-readily submitted to crude numerical approximation. Or, with sets of cases for which types of decisions are more

⁶¹ See *id.* at 215, 218–19.

⁶² *Id.* at 227.

⁶³ See *id.* at 141–42.

⁶⁴ *Id.* at 127.

⁶⁵ See LAWRENCE BAUM, JUDGES AND THEIR AUDIENCES: A PERSPECTIVE ON JUDICIAL BEHAVIOR 172 (2006) (saying that, with respect to empirical study of influences on judicial behavior, "broad measures of the law's impact remain elusive").

directly comparable, it may be roughly possible to separate out legal influences from other factors. Identifying those subjects and means of study requires creative thinking and constructive analysis by theoretical and doctrinal scholars, which should be followed by quantitative verification by empirical scholars.

Looking to the future, the turn toward the law necessitates a turn as well toward examining and classifying the content of judicial opinions rather than merely counting outcomes in cases.⁶⁶ In one of his most recent articles, Professor Cross and his co-author Professor Emerson Tiller observe, "While one cannot dispute the practical significance of outcomes, a decision to ignore opinions misses the law."⁶⁷ To avoid that infirmity, we must move beyond asking which litigant prevailed in a case and now also ask how the advocates and the court framed the question presented and how the legal analysis unfolded in the opinion. In this way, perhaps, as political scientist Howard Gillman suggests, when he discusses the role of law in guiding but not strictly controlling discretion, "we can begin to see how legal norms can matter even if they cannot be mechanically applied—that is, how law can motivate and even shape a decision without determining the result."⁶⁸

Professor Mark Hall and Dean Ronald Wright explain that law professors are especially well-situated and well-trained for the "uniquely legal" task of analyzing the content of judicial opinions for use in empirical analysis:⁶⁹

Content analysis is much more . . . than a better way to read cases. It has the power to transform classic interpretive skills into recognizable and transferable social science knowledge. In other words, this method creates a vessel for exporting the analytical insights of legal scholars in a form that will be treated seriously in the rest of the social science world. This is also more than just legal scholars adopting scientific methods to study social phenomenon relevant to the law, and more than social scientists studying legal phenomena. Content analysis allows the legal academy to cross-pollinate our understanding of legal principles and institutions with

⁶⁶ See CROSS, *supra* note 14, at 36 (noting that opinion content is "commonly neglected by empirical research").

⁶⁷ Emerson H. Tiller & Frank B. Cross, *What Is Legal Doctrine?*, 100 NW. U. L. REV. 517, 523 (2006).

⁶⁸ Gillman, *supra* note 28, at 488; see also Lee Epstein, Nancy Staudt & Peter Wiedenbeck, *Judging Statutes: Thoughts on Statutory Interpretation and Notes for a Project on the Internal Revenue Code*, 13 WASH. U. J.L. & POL'Y 305, 322 (2003) (saying that we can achieve a more "nuanced understanding" of judicial decision making by "consider[ing] how the decision-makers conceptualized the legal problem under consideration").

⁶⁹ Mark A. Hall & Ronald F. Wright, *Systematic Content Analysis of Judicial Opinions*, 96 CAL. L. REV. (forthcoming 2008) (manuscript at 2–3, on file with the California Law Review).

the objective methods and epistemological assumptions of a social scientist.⁷⁰

In sum, as Professor Heise recently concluded, "After much promise and previous false starts, it looks as though empirical legal scholarship has arrived as a research genre."⁷¹ Professor Cross's work, in this book and elsewhere, confirms that empirical methodology has attained prominence and a healthy maturity within the legal academy. A mature discipline, of course, is not a retiring one. Fortunately, the empirical legal scholar's work is never done. Each new significant study opens new frontiers for exploration, and neglected elements remain to be incorporated within existing frameworks for better-specified and more complete analysis. The importance of judging and the rich resource of judicial opinions ensure that subjects for study will never be exhausted.

II

THE QUALITATIVE OPPORTUNITY IN STUDY OF THE COURTS

A. The Limits of Empirical Study of Judicial Decision Making

Judge Harry Edwards insists that "serious scholars seeking to analyze the work of the courts cannot simply ignore the internal experiences of judges as irrelevant or disingenuously expressed. The qualitative impressions of those engaged in judging must be thoughtfully considered as part of the equation."⁷² Most legal scholars, having worked with judges as law clerks or having spent countless hours examining the work product of judges and engaging with their reasoning in legal opinions, are well aware of how diligently and conscientiously the typical judge works to "get it right."

A note sounded repeatedly and loudly in Professor Cross's book is that the body of empirical work on the federal appellate courts has yet to quantitatively account for more than a small fraction of what influences judicial decision making.⁷³ I would add that, even with the growing and ever-more sophisticated efforts to numerically code legal

⁷⁰ *Id.* (manuscript at 47).

⁷¹ Michael Heise, *The Past, Present, and Future of Empirical Legal Scholarship: Judicial Decision Making and the New Empiricism*, 2002 U. ILL. L. REV. 819, 849 (2002).

⁷² Harry T. Edwards, *Collegiality and Decision Making on the D.C. Circuit*, 84 VA. L. REV. 1335, 1338 (1998). Judge Edwards argues that "scholars [should] acknowledge the limits of empirical analysis of adjudication and . . . adopt an appropriately modest stance regarding their claims about how judging works." Harry T. Edwards, *The Effects of Collegiality on Judicial Decision Making*, 151 U. PA. L. REV. 1639, 1689 (2003). Most empirical legal researchers have been less expansive in recent years in drawing conclusions from their findings and more forthright in observing that ideology is hardly the only, or even the most important, explanatory variable for judicial outcomes. The cautious and nuanced nature of the inferences drawn in *Decision Making in the U.S. Courts of Appeals* is illustrative of that salutary development.

⁷³ See CROSS, *supra* note 14, at 229.

and extralegal factors into statistical variables, the translation of judicial decisions into mathematical constructs can never fully convey the richness of the legal analysis contained in the written decisions of the diverse legal disputes that come before the federal courts of appeals. Statistical analysis simply cannot capture the full dimension of that unique and important human enterprise known as judging.

Notwithstanding social scientists' conventional focus on judicial ideology, Professor Cross's analysis of the decisions in the federal appellate database leads him to the conclusion that while "[i]deology appears to be a factor in judicial decision making, . . . the available evidence can demonstrate only that it is a relatively small factor."⁷⁴ Indeed, when the statistical model is more fully specified with additional personal background variables or precedential impact variables, ideology drops out of significance altogether.⁷⁵ Professor Cross's findings are consistent with the general direction of other research on the federal appellate courts.⁷⁶ In an article in which Professor Heise and I examined the public and academic debates about ideological influences on judges, we reported that "[t]he growing body of empirical research on the lower federal courts . . . reveals that ideology explains only a relatively modest part of judicial behavior and emerges on the margins in controversial and ideologically contested cases."⁷⁷ The at-

⁷⁴ *Id.* at 28.

⁷⁵ *See id.* at 88, 215, 218–19.

⁷⁶ *See, e.g.,* VIRGINIA A. HETTINGER, STEFANIE A. LINDQUIST & WENDY L. MARTINEK, JUDGING ON A COLLEGIAL COURT 63–67, 70, 98, 105 (2006) (finding that ideological differences between the majority-opinion writer and another judge on a federal appellate panel increased likelihood of a dissent, although collegial relationships and institutional controls made the chance of any dissent small; but finding no significant ideological influence on a decision by the court of appeals panel to reverse a district court decision); SONGER, SHEEHAN & HAIRE, *supra* note 27, at 114–15 (finding a difference of 6.4% in liberal voting on civil rights/liberties issues between Democratic- and Republican-appointed judges in 1970–1988); SUNSTEIN, SCHKADE, ELLMAN & SAWICKI, *supra* note 33, at 8, 12–13 (finding that Democratic-appointed federal appellate judges cast “stereotypically liberal” votes about twelve percent more of the time than Republican-appointed judges on “a number of controversial issues that seem especially likely to reveal divisions”; noting that party effects were not significant in all areas, and even when “statistically significant, they are usually not huge”); Nancy Scherer, *Are Clinton's Judges “Old” Democrats or “New” Democrats*, 84 JUDICATURE 151, 151, 154 (2000) (finding, in a study of search-and-seizure cases, that the voting behavior of Clinton appointees to the federal courts of appeals is “statistically indistinguishable” from that of judges appointed by his Republican predecessor); Ronald Stidham, Robert A. Carp & Donald R. Songer, *The Voting Behavior of President Clinton's Judicial Appointees*, 80 JUDICATURE 16, 19–20 (1996) (concluding that Clinton's appointees have demonstrated moderate decisional tendencies and finding small differences in “liberal” voting rates, generally under ten percent across categories of cases, for both district and appellate court judges).

⁷⁷ Sisk & Heise, *supra* note 32, at 746; *see also* Jason J. Czarnezki & William K. Ford, *The Phantom Philosophy? An Empirical Investigation of Legal Interpretation*, 65 MD. L. REV. 841, 879, 883 (2006) (finding no significant ideological influence in a study of non-unanimous decisions in one federal circuit and concluding that, “in a data set that is not confined to the most ideologically divisive issues,” “[e]ither most cases do not implicate ideology as typi-

tenuation of ideological influences becomes more pronounced when the effects of judging on a panel are added to the model. Professor Cross finds that the introduction of ideological proxies for other judges on a panel reduces the effect of the proxy variable for individual judge ideology to marginal significance, leaving individual judges' ideology with diminished effect relative to at least certain legal factors, namely a rough measure of Supreme Court precedent and affirmance deference.⁷⁸

Professor Cross also found other commonly explored extralegal factors, such as the judge's personal background and experience to "matter relatively little," with a small substantive effect even when statistically significant.⁷⁹ Other studies of the federal courts generally have found little or no significant influence of factors such as race⁸⁰ and gender,⁸¹ with notable exceptions in certain types of cases.⁸² In

cally understood or the standard proxy measures for ideology are simply too rough to be serviceable").

⁷⁸ CROSS, *supra* note 14, at 165–66.

⁷⁹ *Id.* at 92.

⁸⁰ See, e.g., Orley Ashenfelter, Theodore Eisenberg & Stewart J. Schwab, *Politics and the Judiciary: The Influence of Judicial Background on Case Outcomes*, 24 J. LEGAL STUD. 257, 273–81 (1995); Sean Farhang & Gregory Wawro, *Institutional Dynamics on the U.S. Court of Appeals: Minority Representation Under Panel Decision Making*, 20 J.L. ECON. & ORG. 299 (2004); Jennifer A. Segal, *Representative Decision Making on the Federal Bench: Clinton's District Court Appointees*, 53 POL. RES. Q. 137 (2000); Thomas G. Walker & Deborah J. Barrow, *The Diversification of the Federal Bench: Policy and Process Ramifications*, 47 J. POL. 596, 605–07 (1985).

⁸¹ See, e.g., Sue Davis, Susan Haire & Donald R. Songer, *Voting Behavior and Gender on the U.S. Courts of Appeals*, 77 JUDICATURE 129, 131–32 (1993); Sisk, Heise & Morris, *Judicial Reasoning*, *supra* note 29, at 1451–54; Donald R. Songer, Sue Davis & Susan Haire, *A Reappraisal of Diversification in the Federal Courts: Gender Effects in the Courts of Appeals*, 56 J. POL. 425, 432–37 (1994). See generally Michael E. Solimine & Susan E. Wheatley, *Rethinking Feminist Judging*, 70 IND. L.J. 891, 919 (1995) ("The weight of the evidence demonstrates that most female judges do not decide cases in a distinctively feminist or feminine manner.").

⁸² See, e.g., DANIEL R. PINELLO, *GAY RIGHTS AND AMERICAN LAW* 87, 147–48 (2003) (minority judges and gay rights cases); Davis, Haire & Songer, *supra* note 81, at 131 (female judges in employment discrimination and search-and-seizure cases); Songer, Davis & Haire, *supra* note 81, at 436 (female judges in employment discrimination cases); Jennifer L. Peresie, Note, *Female Judges Matter: Gender and Collegial Decisionmaking in the Federal Appellate Courts*, 114 YALE L.J. 1759 (2005) (female judges in sexual harassment and sex discrimination cases); Christina L. Boyd, Lee Epstein & Andrew D. Martin, *Untangling the Causal Effects of Sex on Judging* 3 (Apr. 24, 2007) (unpublished manuscript), available at <http://ssrn.com/abstract=1001748> (female judges in sex discrimination cases). But see Carol T. Kulik, Elissa L. Perry & Molly B. Pepper, *Here Comes the Judge: The Influence of Judge Personal Characteristics on Federal Sexual Harassment Case Outcomes*, 27 LAW & HUM. BEHAV. 69, 80–82 (2003) (no significance for race or gender of judges in sex discrimination cases); Sarah Westergren, Note, *Gender Effects in the Courts of Appeals Revisited: The Data Since 1994*, 92 GEO. L.J. 689, 703 (2004) (no significance for gender of judges in sex discrimination cases). Other background characteristics, such as prior employment experience, also may emerge as stronger influences in certain types of cases, such as a criminal defense practice background on criminal sentencing rulings. See Sisk, Heise & Morris, *Judicial Reasoning*, *supra* note 29, at 1383 (finding that "prior experience as a criminal defense lawyer was significant under several formulations of our dependent variables as an explanatory varia-

addition, while exploring whether circuit judges strategically adapt their decisions to account for changes in the ideological preferences of the Supreme Court, Professor Cross's study produces some perplexing results. The study finds a significant but negative correlation with present Court preferences and a significant but positive association with past Court preferences.⁸³ But here too the explanatory power of the full model of variables on the overall variance in the outcome of decisions remains modest.⁸⁴ Similarly, prior studies have found little or weak evidence of such strategic behavior by federal appellate judges.⁸⁵

Nor are mathematical translations of legal factors an exception to this pattern of minimal demonstrated effect.⁸⁶ Even with the introduction of law variables, which produces robust and statistically significant correlations, the overall statistical model nonetheless continues to explain a modest amount of the overall variation in case outcomes.⁸⁷ Still, given the difficulty of integrating most legal rules into statistical models, the law, together with the specific facts of each case, likely accounts for much of the unexplained variation in case outcomes.⁸⁸

Readers from outside the community of empirical scholars may misinterpret a candid description of the boundaries of empirical analysis as a deprecation of empirical legal scholarship or as a suggestion that the field deserves lesser attention in the legal academy. Instead, as Professors Lee Epstein and Gary King remind us, "no matter how perfect the research design, no matter how much data we collect, and no matter how much time, effort, and research resources we expend, we will never be able to make causal inferences with certainty."⁸⁹ Indeed, a recognition of the constraints of quantitative measures in explaining legal decision making is a signal of the maturity of this field of legal study, as well as the comfort of experienced empirical scholars with uncertainty and imperfection.

ble for opposition to the [federal] Sentencing Guidelines," describing this result as "striking," and concluding that this finding provides "greater support to the behavioral model of judicial decisionmaking than we anticipated").

⁸³ See CROSS, *supra* note 14, at 103–08.

⁸⁴ See *id.* at 104–05, 107.

⁸⁵ See, e.g., Tracey E. George, *Developing a Positive Theory of Decisionmaking on U.S. Courts of Appeals*, 58 OHIO ST. L.J. 1635, 1695 (1998); David E. Klein & Robert J. Hume, *Fear of Reversal as an Explanation of Lower Court Compliance*, 37 LAW & SOC'Y REV. 579, 580 (2003).

⁸⁶ See CROSS, *supra* note 14, at 229 (noting that, "[e]ven with legal variables, the models had limited explanatory power").

⁸⁷ See *id.* at 54–55 (affirmance deference variable); *id.* at 165–68 (precedent and affirmance deference variables in study of panel effects); *id.* at 212–27 (precedential impact).

⁸⁸ See *id.* at 229 (speculating that "the determinants of the great residual of decisions are unmeasured legal variables combined with the varying facts of the cases").

⁸⁹ Epstein & King, *supra* note 2, at 37.

Acknowledging the incremental increase in knowledge contributed by any single study and the limits of the body of empirical work are distinctive features of the scientific dimension of this methodology. Caution in reporting results, and humility in drawing inferences, is essential in the scientific enterprise (if not always as candidly evident as it should be in published articles, a fault that probably describes some of my own empirical work). As I have written previously, "empirical research, with its inherent limitations in study design and qualifications in measurement, nearly always requires treating conclusions as tentative, context-specific, imperfect, and incomplete in coming to an understanding of human behavior."⁹⁰ Fortunately, Professor Cross is admirably candid in acknowledging those uncertainties and humbly qualifying the inferences that may be drawn from the findings of his comprehensive study.

Moreover, the limited explanatory power of his overall model is inherent in the nature of this project. Professor Cross's book draws primarily upon a national database of federal appellate court decisions.⁹¹ That the statistical model accounts for only a small amount of the variance in judicial outcomes is "to some degree a feature of the immense courts of appeals database."⁹²

In addition, a small effect does not necessarily mean an inconsequential effect. That ideology plays *any* role in judicial decision making is an important and substantive finding, even with the qualifying understanding that the effect is constrained. Furthermore, certain variables, including ideology, are more likely to emerge and have greater substantive effect in certain types of cases, in contrast with the large and diverse sample of published federal appellate decisions that serve as the primary source for the studies reported in Professor Cross's book.

B. The Indispensable Value of Doctrinal and Theoretical Scholarship to the Study of Law and Judicial Decision Making

To say that empirical analysis is but one precinct of legal scholarship and that ample room remains for other forms of scholarship is not to minimize its importance in the least. Empirical study should occupy a central place as the testing laboratory for legal theory and doctrine. At the same time, empirical scholars from within the legal discipline are more likely to appreciate the importance of the study of law on its own terms. As Professors Tiller and Cross have written, "Le-

⁹⁰ Sisk & Heise, *supra* note 32, at 746.

⁹¹ See Cross, *supra* note 14, at 3 (referencing the United States Courts of Appeals Database, created and supervised by Donald Songer).

⁹² *Id.* at 5.

gal doctrine is the currency of the law.”⁹³ Accordingly, those scholars who are fluent in legal doctrine and ingenious in legal theory are indispensable to the study of law, in both normative and objective terms, because they are able to translate the law in ways that can serve as a tool for further empirical examination.⁹⁴

As empiricists work to capture legal doctrine in quantitative terms, and conduct experiments designed to accurately describe the role and operation of legal (and non-legal) factors in judicial decisions, traditional doctrinal scholarship remains vital in identifying the pertinent doctrines and sub-doctrines that apply within a field of law. In addition, doctrine varies across and within areas of law in multiple ways: venerability or novelty; stability or fluidity; extent of integration within a larger coherent system of doctrine; sharpness of definition; mandatory or optional invocation; substantive or procedural character; and reliance on bright-line rules versus discretion in the balancing of factors or standards. Thus, Professors Tiller and Cross rightly advocate “collaborative efforts between legal scholars who understand the legal meaning and implications of doctrine, and social scientists who can formalize models of individual and institutional judicial behavior as well as quantify and measure characteristics of legal doctrine in the context of such models.”⁹⁵

Theory has always been a vital foundation to empirical study of judging, whether derived from political science or the legal academy. As sociologist Richard Harvey Brown explains, “The fact that such theories are justified only by supplemental scientific observation does not matter; for the definition of what *constitutes* such observation is also made from the point of view of a surrounding body of theory.”⁹⁶ Theory provides the context for empirical research, both in terms of determining what to study⁹⁷ and interpreting what has been observed. “[O]nce data are selected for interpretation,” Professor Herbert Kritzer explains, “it is the context that allows the analyst to attach meanings to the data.”⁹⁸ No serious empirical scholar in any discipline examines the judiciary without being familiar with both the theoretical and the empirical literature on the question at hand.

⁹³ Tiller & Cross, *supra* note 67, at 517.

⁹⁴ See Kim, *supra* note 54, at 385 (arguing that “law matters in its own right and that both theoretical and empirical efforts to understand how judges make decisions will be enhanced by paying more attention to legal doctrine and legal norms”).

⁹⁵ Tiller & Cross, *supra* note 67, at 532.

⁹⁶ RICHARD H. BROWN, *A POETIC FOR SOCIOLOGY* 43 (1977).

⁹⁷ Cf. Michael J. Piore, *Qualitative Research Techniques in Economics*, 24 ADMIN. SCI. Q. 560, 566 (1979) (saying that qualitative research addresses the crucial “step in the epistemological process” of “identifying the variables that are worth estimating in the first place”).

⁹⁸ Herbert M. Kritzer, *The Data Puzzle: The Nature of Interpretation in Quantitative Research*, 40 AM. J. POL. SCI. 1, 14 (1996).

Even the traditional lesson of empirical study, that extralegal factors influence judges, ultimately teaches us the continued importance of legal theory and doctrinal structure. While often overstated in both breadth and magnitude, empirical studies certainly have confirmed that judges, at the margins and in the difficult cases, are influenced by their background, experiences, and, yes, even ideology. As I have written previously, for those of us who retain an aspirational faith in principled judging, "empirical studies of judicial decision making can be a sobering splash in the face with cold reality."⁹⁹ Still, while the basic empirical finding that political ideology explains some of the variation among judges' decisions in certain categories of cases cannot be denied,¹⁰⁰ the influence of an ideological variable should not be overstated.¹⁰¹

Additionally, we should be far from satisfied with the concept of ideology as presently applied in empirical work regarding the courts. The *International Encyclopedia of the Social Sciences* defines ideology as "one variant form of those comprehensive patterns of cognitive and moral beliefs about man, society, and the universe in relation to man and society, which flourish in human societies."¹⁰² Nothing nearly so sophisticated is in operation in most empirical research conducted on the courts, whether undertaken by political scientists or law professors.

When those applying quantitative methods to the study of the federal courts or research on political actors refer to ideology, they typically mean nothing more than the issue positions advocated by the Republican and Democratic political parties or the spectrum between mainstream conservatism and liberalism in American political discourse (which, in turn, is associated to a greater or lesser degree with those parties). Even with the welcome introduction of more refined measures that move beyond the most basic partisan proxies,¹⁰³ ideology still is plotted along a single continuum from right to left and almost invariably is tested against case outcomes without evaluation of

⁹⁹ Gregory C. Sisk, *Judges Are Human, Too*, 83 JUDICATURE 178, 211 (2000).

¹⁰⁰ See *id.* at 178–79, 211 (criticizing the "response of denial" to the empirical evidence that judicial background and preferences influence decision making).

¹⁰¹ Heise, *supra* note 71, at 838–39 ("[T]he influence of ideology should not be overstated."); see *supra* notes 74–78 and accompanying text.

¹⁰² Edward Shils, *The Concept and Function of Ideology*, in 7 INTERNATIONAL ENCYCLOPEDIA OF THE SOCIAL SCIENCES 66, 66 (David L. Sills ed., 1968).

¹⁰³ On the development of alternative measures of political ideology used in empirical studies of judicial decision making, see Lee Epstein, Andrew D. Martin, Jeffrey A. Segal & Chad Westerland, *The Judicial Common Space*, 23 J.L. ECON. & ORG. 303 (2007); Micheal W. Giles, Virginia A. Hettinger & Todd Peppers, *Picking Federal Judges: A Note on Policy and Partisan Selection Agendas*, 54 POL. RES. Q. 623 (2001); Sisk & Heise, *supra* note 32, at 783–90; Micheal W. Giles, Virginia A. Hettinger & Todd C. Peppers, *Measuring the Preferences of Federal Judges: Alternatives to Party of the Appointing President* (June 11, 2002) (unpublished manuscript, on file with author).

the decision-making process. Seldom are ideological measures that have been individuated for judges used in social science studies of the lower federal courts. Instead, a proxy variable projects upon each judge a mathematical construct derived from the preferences of political actors outside the judiciary.¹⁰⁴ The creative process then extends further by imposing a political dichotomy on the outcome of cases, generally assigning one side the role of “underdog” and treating a ruling for that litigant as “liberal” (and vice-versa). In sum, empirical researchers generally conceive of ideology in political terms as an extralegal influence on judging, rather than in legal terms, as a judicial philosophy that describes how a judge appreciates and approaches legal problems and sources.

Theoretical and doctrinal scholars will be of invaluable assistance to empirical research as they continue to help empirical researchers think outside the box of political ideology. Study of the political variable certainly is an important endeavor, especially when seeking to connect actors or activity in the judicial branch with the same in the political branches. But the politically defined concept is incomplete when applied to courts and judges. When a measure is conceived that captures more than conventional political preferences, or that better evaluates the jurisprudential aspect of judicial decision making, the subject of study may shade from political ideology into judicial philosophy. Judicial philosophy as a systematic method, though overlapping with political ideology, arguably falls at least partly within the legal model of judging rather than entirely outside of it.

As those with backgrounds in theoretical and doctrinal scholarship seek to define more precisely the nature of alternative judicial or interpretive philosophies in a manner that lends itself toward some measure of quantitative translation, our empirical understanding of federal judicial decision making may be enriched. As but the most recent examples available, Professors Jason Czarnezki and William Ford—as well as Professor Cross, in his own ongoing work—have had some success in measuring judicial interpretive strategies or methodologies. Professors Czarnezki and Ford have coded opinions for cues or tools of interpretation, which are associated with particular philosophies of interpretation of legal texts—including the use of balancing tests as a form of pragmatism, invocation of legislative history as underscoring legislative intent or purpose, or use of dictionaries as signaling a textualist approach.¹⁰⁵ This enhanced attention to

¹⁰⁴ See Sisk & Heise, *supra* note 32, at 793.

¹⁰⁵ See Frank B. Cross, *The Significance of Statutory Interpretative Methodologies*, 82 NOTRE DAME L. REV. 1971, 2001 (2007) (finding that Supreme Court Justices most often employ textualist and legislative-intent methodologies; while frequency of use of particular methods differs between Justices, “the Court as a whole is quite pluralist in its methods of statutory interpretation”); Czarnezki & Ford, *supra* note 77, at 879, 882 (finding that neither

interpretive methods proceeds in the context of past and ongoing research by others, primarily (but not exclusively) from the legal academy.¹⁰⁶

Moreover, the empirical description of one particular aspect of the reality of judging as being subject to extralegal influence cannot undermine the persistent normative appeal of the legal model of judging. As Professor Kent Greenawalt has written, "The traditional model posits as a desirable aspiration an ideal that legal decision not depend on the personality of the judge. The aspiration is not fully achievable even if all judges are intelligent, well-trained, and conscientious, but it is worth striving for"¹⁰⁷ Indeed, greater awareness of the influences of judicial attitudes and preferences may encourage greater self-conscious objectivity and heightened attention to legal rules and norms among judges. In this respect and others, the work applying the insights of cognitive psychology to judicial decision making holds great promise.¹⁰⁸ Professors Chris Guthrie and Jeffrey Rach-

ideology nor variables for interpretive philosophies were significant predictors of agreements among dyads of federal appellate judges, while shared experience on the bench as a measure of collegiality did have a significant impact on agreement).

¹⁰⁶ See, e.g., James J. Brudney & Corey Ditslear, *Canons of Construction and the Elusive Quest for Neutral Reasoning*, 58 VAND. L. REV. 1, 111–12 (2005) (examining the use of ten canons of construction by the Supreme Court in cases involving workplace law matters and concluding that whether the canons "serve as a form of neutral reasoning" or instead are "applied in ideologically slanted ways" depends upon the setting and on how the canons are understood to have been applied by a particular legal audience); Daniel M. Schneider, *Empirical Research on Judicial Reasoning: Statutory Interpretation in Federal Tax Cases*, 31 N.M. L. REV. 325, 351 (2001) (studying the frequency of use of statutory interpretation methods in Tax Court cases; finding that ideology failed "to influence the methods of construction judges use to justify their decisions"); Nancy Staudt, Lee Epstein, Peter Wiedenbeck, René Lindstädt & Ryan J. Vander Wielen, *Judging Statutes: Interpretive Regimes*, 38 LOY. L.A. L. REV. 1909, 1913, 1926, 1929–70 (2005) (examining the Supreme Court's use of modes of statutory analysis, from the perspective of interbranch dynamics, by grouping interpretive regimes according to which branch of government they empower; finding greater deference to executive agencies in tax cases than in civil rights cases, as well as "an unusual willingness on the part of the current Court" to use interpretive methods that focus on the product or process of the legislative branch); Nicholas S. Zeppos, *The Use of Authority in Statutory Interpretation: An Empirical Analysis*, 70 TEX. L. REV. 1073, 1136–37 (1992) (examining a random sample of statutory interpretation cases in the Supreme Court for employment of various interpretive methods; concluding that the Court's approach is "eclectic, considering a wide range of sources of authority" and that "[d]ynamic models may best capture the Court's practice in statutory interpretation").

¹⁰⁷ KENT GREENAWALT, *PRIVATE CONSCIENCES AND PUBLIC REASONS* 142 (1995).

¹⁰⁸ See, e.g., Chris Guthrie, Jeffrey J. Rachlinski & Andrew J. Wistrich, *Blinking on the Bench: How Judges Decide Cases*, 93 CORNELL L. REV. 1, 29–43 (2007) (positing an "intuitive-override" model of judging in which judges make intuitive decisions that sometimes are overridden by deliberation; using an evaluation of questionnaires given to state trial judges as the basis for proposed reforms to reduce overreliance on intuition); Chris Guthrie & Tracey E. George, *The Futility of Appeal: Disciplinary Insights into the "Affirmance Effect" on the United States Courts of Appeals*, 32 FLA. ST. U. L. REV. 357, 385 (2005) (examining the "affirmance effect" in the federal courts of appeals "through the lens of political science, psychology, and behavioral economics"); Chris Guthrie, Jeffrey J. Rachlinski & Andrew J. Wistrich, *Inside the Judicial Mind*, 86 CORNELL L. REV. 777 (2001) [hereinafter Guthrie, Rachlinski &

linski, and Judge Andrew Wistrich, suggest that by better “educat[ing] themselves about cognitive illusions”¹⁰⁹ and by “temper[ing] their confidence in their abilities,”¹¹⁰ judges may be able to avoid errors and strengthen the product of judicial reasoning.¹¹¹ Likewise, by educating judges about other subconscious factors, such as personal preferences or extralegal motivations, which are found through empirical work to be influencing judicial decision making at the margins or in particular types of cases or fields of law, judicial impartiality may be enhanced.

The reality of influences intruding from outside the legal process also serves to remind the rest of us of the need to constrain or guide judicial discretion with law.¹¹² Here too, Professor Cross has been one of the scholars leading the way. Analogizing the law to “ropes binding a judicial Houdini,” he notes that careful evaluation of the results of empirical research may help us “understand which brand of rope and which type of knot are most effective and inescapable.”¹¹³ In his book, for example, Professor Cross finds that the command of deference by appellate courts to trial judges (as to certain findings and decisions) has a power that “clearly exceeds all the other variables that have been tested.”¹¹⁴

As another example of the constraining potential of general legal principles that do not impose a bright-line positivist rule, Professor Alexander Volokh argues that “methods of interpretation can matter, to the extent different methods make different results more plausible.”¹¹⁵ He suggests that if a method of interpretation (such as textualism) were to gain dominance over competing methods so that a judge could no longer self-select interpretive methods to reach a preferred outcome in a case, then the true nature of the interpretive method would emerge, a greater constraint on judicial choices would

Wistrich, *Inside the Judicial Mind*] (reporting the results of a study of federal magistrate judges and finding evidence that trial judges use mental shortcuts, or heuristics, to make judicial decisions); Jeffrey J. Rachlinski, Chris Guthrie & Andrew J. Wistrich, *Inside the Bankruptcy Judge's Mind*, 86 B.U. L. REV. 1227 (2006) (conducting an experiment on specialist court judges to examine judging from the perspective of cognitive psychology). For a discussion of social psychology and the audiences to which judges seek to present themselves as affecting judicial behavior, see generally BAUM, *supra* note 65.

¹⁰⁹ Guthrie, Rachlinski & Wistrich, *Inside the Judicial Mind*, *supra* note 108, at 821.

¹¹⁰ *Id.* at 824.

¹¹¹ *See id.* at 821–25.

¹¹² *See* Michael A. Perino, *Law, Ideology, and Strategy in Judicial Decision Making: Evidence from Securities Fraud Actions*, 3 J. EMPIRICAL LEGAL STUD. 497, 505 (2006) (explaining that law, while “not completely determinate,” may “still act as a constraint that limits the discretionary space in which a judge may operate”).

¹¹³ Cross, *supra* note 35, at 326.

¹¹⁴ Cross, *supra* note 14, at 178.

¹¹⁵ Alexander Volokh, *Choosing Interpretive Methods: A Positive Theory of Judges and Everyone Else*, 83 N.Y.U. L. REV. (forthcoming June 2008) (manuscript at 5, on file with the NYU Law Review) (providing a theoretical model of judicial choices of interpretive methods).

be realized, and some of the apparent political differences in application of interpretive methods would be washed out.¹¹⁶ Creatively designed empirical studies might compare and contrast the constraining effect of interpretive methods in jurisdictions that have arrived at a more uniform approach toward interpretation of certain types of legal texts.

A human enterprise that asks even well-trained persons to judge the correct (or most correct) answer to a dispute based on the human construct of law could never achieve perfect objectivity. Empirical scholarship can show us where the judicial system is reasonably effective in exerting a "classic legal tug"¹¹⁷ against personal judicial preferences or attitudes, and where it falters. Theoretical and doctrinal deliberation then may suggest ways to shore up the foundations weakened by subconscious bias or inadequate legal definition.

III

THE COMPLEMENTARITY OF EMPIRICAL AND TRADITIONAL LEGAL SCHOLARSHIP IN UNDERSTANDING THE COURTS

Legally trained scholars, including those with advanced degrees from other disciplines and those who primarily conduct quantitative research, have an advanced understanding of legal doctrine and theory.¹¹⁸ In contrast with similar movements from earlier historical periods, such as the Legal Realists of the early- to mid-twentieth century, the empirical legal studies movement has been neither triumphalist nor deprecatory toward other approaches to the study of law and legal institutions. Indeed, precisely because empirical scholars in the legal academy have cautiously tended to refrain from claiming to have uncovered pervasive and powerful extralegal influences on judges—a caution well-justified by the results of published studies—the door remains open for cooperative scholarly interchanges between those conducting different forms of legal research that focus on or are relevant to judicial decision making.

Now that empirical research is well established as a full partner in the advancement of knowledge and understanding about the law and efforts to improve the law, the legal academy should recognize and encourage the complementarity of the empirical approach with the traditional forms of legal scholarship. When empirical analysis fails to

¹¹⁶ See *id.* (manuscript at 5–6).

¹¹⁷ See CROSS, *supra* note 14, at 200.

¹¹⁸ See Eisenberg, *supra* note 8, at 1741 (stating that, when it comes to conducting empirical research, "nonlawyers have the distinct disadvantage of often not understanding legal doctrine or the state of law," which "sometimes leads to blunders that compromise empirical analyses").

provide a complete explanation for a body of judicial decisions (as it invariably will), theoretical and doctrinal analysis may step in to flesh out the model being constructed to explain or critique developments in the law. When theoretical and doctrinal scholars explore new trends or movements in the law, empirical study provides a means for determining whether the supposed patterns truly have taken hold in the courts¹¹⁹ or whether other factors not so readily apparent instead explain at least some of what is transpiring.¹²⁰ As Professors Clermont and Eisenberg explain, “opinion-reading and data-mining can reveal different things, and both are independently worth doing.”¹²¹

When empirical scholarship demonstrates the persistent influence of extralegal factors or some form of bias in a particular category of cases, theoretical and doctrinal analysis may suggest means by which the legal texts or substantive or procedural rules might be modified to constrain or channel the exercise of judicial discretion or to mitigate inappropriate or unintended influences. These measures, in turn, could then be tested in action by another wave of empirical study. Moreover, further education for legal actors about the teachings of theoretical, doctrinal, and empirical legal studies will allow everyone to undertake more effectively their responsibilities.

¹¹⁹ See, e.g., Theodore Eisenberg & Stewart Schwab, *The Reality of Constitutional Tort Litigation*, 72 CORNELL L. REV. 641, 642–44, 693–95 (1987) (finding that, while the growth of constitutional tort caseloads is not trivial, constitutional tort litigation is neither as prevalent nor as burdensome on courts or government defendants as commonly thought); Andrew P. Morriss, *Developing a Framework for Empirical Research on the Common Law: General Principles and Case Studies of the Decline of Employment-at-Will*, 45 CASE W. RES. L. REV. 999, 1020–56 (1995) (studying the evolution of the common-law doctrine of wrongful discharge); Andrew P. Morriss, *Exploding Myths: An Empirical and Economic Reassessment of the Rise of Employment At-Will*, 59 MO. L. REV. 679, 681–82 (1994) (finding that, contrary to the myth arising during industrialization that the employment-at-will rule reflects a bias against employees, “the real significance of the at-will rule was the rule’s location of authority to end an employment relationship” and “the judicial adoption of the rule reflected the benefits to judges of a simple, clear rule which was consistent with the contemporary style of legal analysis”); Gregory C. Sisk, *How Traditional and Minority Religions Fare in the Courts: Empirical Evidence from Religious Liberty Cases*, 76 U. COLO. L. REV. 1021, 1023–24, 1033–37 (2005) (finding that, contrary to conventional wisdom, adherents to traditionalist Christian faiths face greater obstacles obtaining judicially-ordered accommodation for religious conscience than do members of minority religions).

¹²⁰ On extralegal (and unacknowledged) influences on judicial decisions, see *supra* notes 29–34, 73–85. On legal factors as explanations for judicial decisions, see *supra* notes 35–64, 86–88.

¹²¹ Kevin M. Clermont & Theodore Eisenberg, *Judge Harry Edwards: A Case in Point!*, 80 WASH. U. L.Q. 1275, 1286 (2002). Herman Pritchett, the pioneering empiricist in political science, explained that such a quantitative method gives additional meaning to social science inquiry, while acknowledging that “[a] box score is no substitute for the process of careful analysis of judicial writing by trained minds using all the established methods for coaxing meaning out of language.” C. HERMAN PRITCHETT, *CIVIL LIBERTIES AND THE VINSON COURT* 189–91 (1954).

Whereas scientific study of legal matters is primarily descriptive, “only useful in discovering and understanding what *is*,”¹²² “doctrinal scholarship engages the legal scholar in a process of creation[.]”¹²³ and theoretical scholars may “participate in the construction of legal regimes.”¹²⁴ In addition, when *quantitative* researchers identify problems or patterns from the numerical data analyzed by statistical methods, *qualitative* researchers, through their engagement with theory and doctrine, may provide better insight into what empirical scholars are finding and what it means.¹²⁵ Together, these different but complementary forms of legal scholarship provide the means to establish a better foundation for the rule of law.

Political scientists C.K. Rowland and Robert Carp have lamented the “unnecessary, deleterious bifurcation between qualitative legal scholarship and quantitative social science research”¹²⁶ in which these counterpart disciplines “barely acknowledge, much less complement, each other.”¹²⁷ As empirical legal research continues to mature, we should see an increased respect for, and collaboration across, academic disciplines around the university, especially between law professors and law-and-courts political scientists whose subjects overlap—and who have so much to say to each other.¹²⁸ But if true interdisciplinary dialogue is ever to be achieved, it surely must begin with an integration of the quantitative and qualitative dimensions within the discipline of the law itself. And what may, and should, prove distinctive about the quantitative and qualitative enterprises as conducted within the legal academy is a concerted and sympathetic engagement with law, not to the neglect of other influences or dimensions but taken seriously on its own terms.

CONCLUSION

Legal scholar and appellate advocate Paul Bator, in a paper published after his untimely death, reminded us that “[t]he judicial power

¹²² David J. Herring, *Legal Scholarship, Humility, and the Scientific Method*, 25 QUINNIPIAC L. REV. 867, 872 (2007).

¹²³ *Id.* at 873.

¹²⁴ *Id.* at 874.

¹²⁵ See Kritzer, *supra* note 23, at 689 n.6 (saying that at the interpretation stage of the research process, “quantitative researchers could profitably look to the methods of qualitative research for insights into what is being done”).

¹²⁶ C.K. ROWLAND & ROBERT A. CARP, *POLITICS AND JUDGMENT IN FEDERAL DISTRICT COURTS* 149 (1996).

¹²⁷ *Id.* at 150.

¹²⁸ See Lee Epstein & Gary King, *Building an Infrastructure for Empirical Research in the Law*, 53 J. LEGAL EDUC. 311, 316 (2003) (“[L]aw schools should encourage their faculty into collaborations with scholars who know how to conduct serious empirical research. . . . Legal academics need not waste precious time learning the details of every possible new skill and instead can rely on coauthors, who presumably would benefit from the substantive expertise that law faculty bring to the table.”).

is neither a Platonic essence nor a pre-existing empirical classification. It is a purposive institutional concept, whose content is a product of history and custom distilled in the light of experience and expediency."¹²⁹ While Bator was addressing the evolution of the institutions adjudicating disputes within the American constitutional framework, his words convey the complexity of context, the varied nature of controversies, the diversity of actors, the multifarious factors of analysis, and the real-world influences of setting, history, practicality, and expediency that are all implicated in judicial decision making. It should be no surprise, then, that the multi-faceted form of human reasoning involved in legal judging cannot be captured by one discipline, nor be fully understood by one analytical approach.

Bator denied that the constitutional judicial power could be defined by "a rigid logical scheme" or be described in a "mechanical way."¹³⁰ By methodological definition, then, quantitative measures that ultimately require mechanical application can only take us so far when we set out to explore this human enterprise.¹³¹ Because judging, even when principled and attendant to the law, is not itself a scientific process, it cannot be fully explained by a scientific method. Neither, however, can study of the law—that intensely practical question of how a society orders itself and the relations between citizens by the rule of law applied through legal institutions—be taken seriously if it fails to be regularly connected to the real world as described by empirical study.

Through his book, and his other previous and continuing work, Professor Cross has succeeded in liberating the empirical study of judicial decision making from a myopic focus on ideology and partisanship without naively ignoring the role that those factors play in the

¹²⁹ Paul M. Bator, *The Constitution as Architecture: Legislative and Administrative Courts Under Article III*, 65 IND. L.J. 233, 265 (1990).

¹³⁰ *Id.*

¹³¹ That is not to deny that empirical study may contribute in substantial ways to the understanding of non-mechanical behavior, which of course describes the nature of study for all social science research. Indeed, a researcher who appreciates that the law is not "a mechanistic, autonomous force" that dictates a definitive answer to every dispute may better be able to identify the influences of legal factors on judging. See Mark J. Richards & Herbert M. Kritzer, *Jurisprudential Regimes in Supreme Court Decision Making*, 96 AM. POL. SCI. REV. 305, 305, 315 (2002) (conducting empirical study through construction of "jurisprudential regimes [that] structure Supreme Court decision making by establishing which case factors are relevant for decision making and/or by setting the level of scrutiny the justices are to employ in assessing case factors"); see also Herbert M. Kritzer & Mark J. Richards, *Jurisprudential Regimes and Supreme Court Decisionmaking: The Lemon Regime and Establishment Clause Cases*, 37 LAW & SOC'Y REV. 827, 839 (2003) (using jurisprudential regimes as a theoretical framework for empirical analysis of Establishment Clause decisions and concluding that "[l]aw does matter when the justices of the Supreme Court decide cases"). Rather, I mean in this Essay only to insist that the non-mechanical nature of judging makes it impossible for quantitative measures to capture everything or for number-crunching to explain everything.

human enterprise of judging. Professor Cross has been willing to look beyond the cynical supposition that everything about judicial decision making revolves around the person, personality, and personal preferences of the deciding judge. As much as any other empirical researcher, he has moved the question of law to the front burner.

Among legal scholars studying the courts, no one has contributed more to the integration of the quantitative and the qualitative approaches to legal scholarship than Professor Cross. In his prodigious body of work, he has worked to operationalize the legal model in statistical studies of judging, bringing to bear his legal training to identify and creatively measure such factors as precedent, procedure, standards of review, interpretive methods, and elements of doctrine for quantitative analysis. His work has borne much fruit already, scientifically establishing that "[l]egal rules are much better determinants of outcomes than is judicial ideology."¹³² Beyond the concrete findings, Professor Cross has suggested that much of what remains unexplained by empirical methodology is likely to be found in the neither formulaic nor wholly subjective application of legal reasoning by judges.

In *Decision Making in the U.S. Courts of Appeals*, Professor Cross simultaneously enhances our understanding of the courts through solid empirical analysis and candidly acknowledges that empiricism cannot describe the whole of the cathedral. In this way, he points the way toward continued progress in the quality and effectiveness of quantitative study, while providing an opportunity for the enhanced relevance of theoretical and doctrinal work to our collective understanding of judicial resolution of human disputes through the law.

¹³² CROSS, *supra* note 14, at 9.